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for the U.S. Department of Energy

Memo

Date: October 24, 2002

To: D. Lowenstein

From: C. Schaefer, ALARA Committee Chair *CS* 10/24/02

Cc: E. Lessard

Subject: **PROPOSED C-A FY 2003 COLLECTIVE DOSE GOAL**

The C-A ALARA Committee met to review the department's collective exposure for FY' 02 against the "as run" operating schedule and to develop a proposed dose goal for FY' 03. As in the past collective dose was strongly correlated with the department's operating schedule. Higher doses were associated with high-intensity proton operations that significantly activate primary beam components. Because of this it is recommended that due consideration be given to scheduling extended maintenance periods following operations with ions to maximize the cooldown of activated equipment.

Monthly doses for FY' 02 were found to be in generally good agreement with the model used to predict those exposures for both operations and maintenance. The prescription is:

$$\text{Annual Dose Goal (person-mrem)} \leq A*3000 + B*1500 + C*500 + D*1000 + E*2000$$

Where:

- A = no. of equivalent HEP program months in FY 2003
- B = no. of g-2 program months in FY 2003
- C = no. of RHIC and NASA/BAF program months in FY 2003
- D = no. of months of U-line experiments in FY 2003
- E = no. of scheduled maintenance months in FY 2003

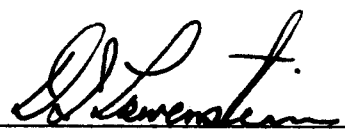
Based on the current operating schedule for FY' 03 (attached) the recommended C-A dose goal for FY' 03 is 17.5 person-rem, 5.5 person-rem lower than last year's goal. This assumes six program months of RHIC operation, three months of BAF commissioning and operations, four-and-a-half months of maintenance, half-a-month of U-line experiments, and half a month of slow beam (HEP) operation. Due to the uncertainty of funding for MECO, KOPIO and g-2 an extra two person-rem is budgeted to cover the potential for work in either the C line or g-2 blockhouse.

A review of individual exposures for the last year demonstrates that keeping the departmental Administrative Control Level (ACL) of 1000 mrem/person is warranted.

The C-A ALARA committee met on 10/17/02 to review these issues and, based on the reduced primary beam area workload and cooling machine in FY' 03, concurs with the above-proposed dose goal and ACL values for FY 2003. Your concurrence is requested so that I can transmit them to the BNL ALARA Coordinator.

CWS:bl
FS40.02

Attachment: C-A Operations Schedule for FY' 03-04

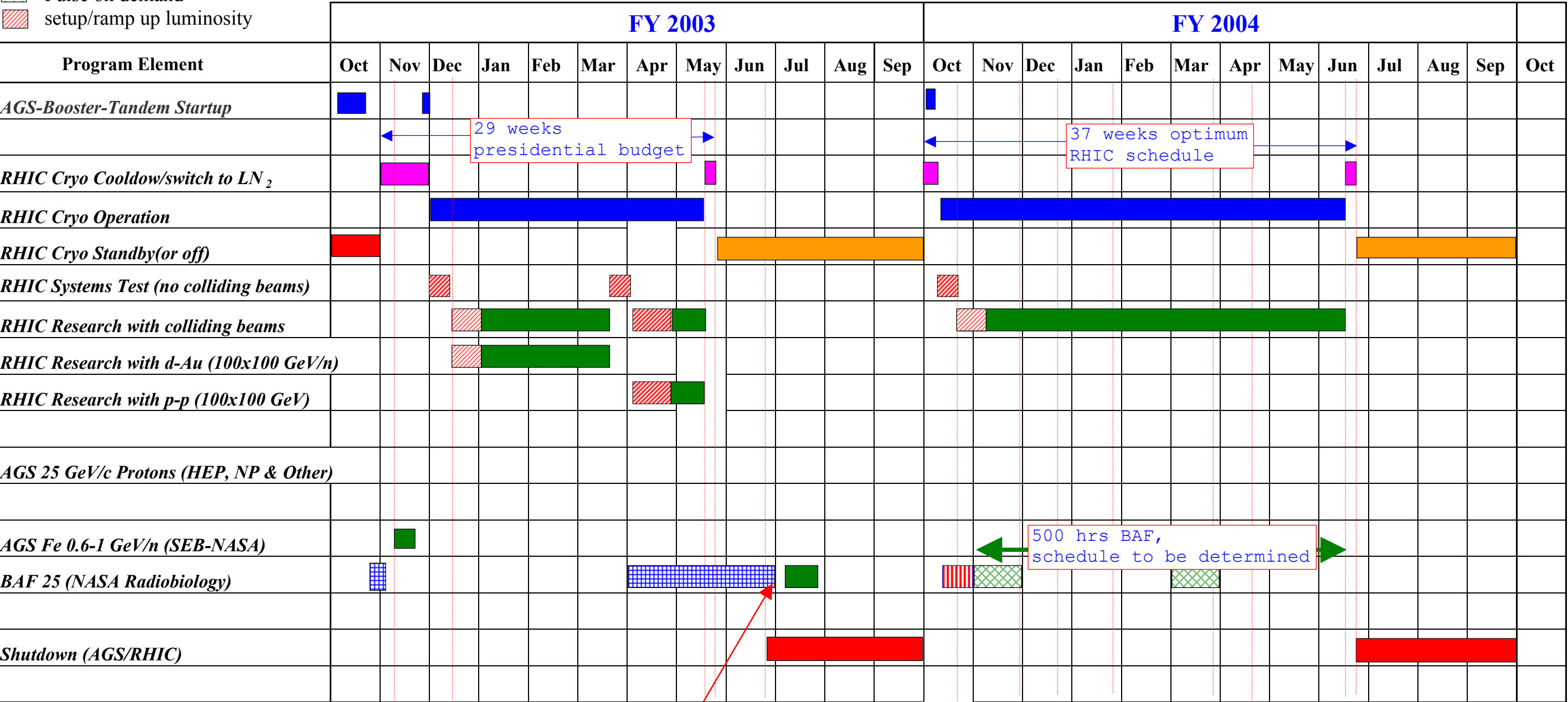
Concurrence:  Date: 10/25/02
D.I. Lowenstein
C-A Department Chairman

C-A Operations-FY03-04

9 Sep 02

- No BAF/SEB/FEB operation
- Concurrent with RHIC operations
- Commissioning
- Pulse on demand
- setup/ramp up luminosity

subject to funding etc.



BAF Project Complete, followed by 100 hr initial run